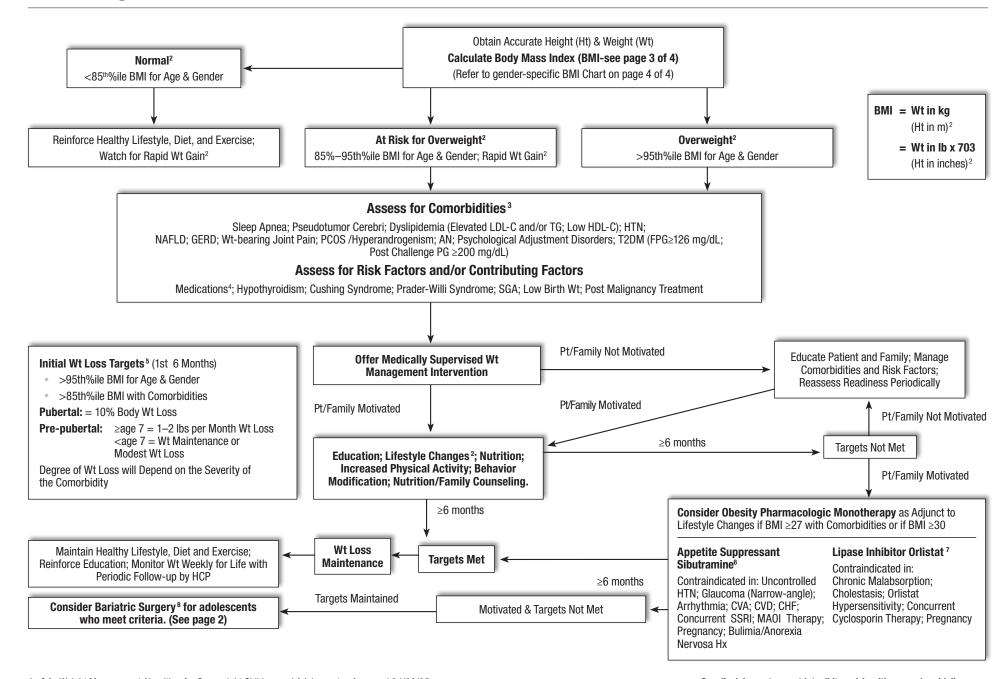
Weight Management Algorithm for Overweight Children and Adolescents¹







Abbreviations

AN: Acanthosis Nigricans CHF: Congestive Heart Failure CVA: Cerebrovascular Accident CVD: Cardiovascular Disease FPG: Fasting Plasma Glucose

GERD: Gastro-esophageal Reflux Disease

HCP: Health Care Professional

HDL-C: High-density Lipoprotein Cholesterol

HTN: Hypertension (>95th%ile Blood Pressure for Age

& Gender & Ht)

LDL-C: Low-density Lipoprotein Cholesterol **MAOI:** Monoamine Oxidase Inhibitors **NAFLD:** Non-alcoholic Fatty Liver Disease **PCOS:** Polycystic Ovary Syndrome

SGA: Small for Gestational Age

SSRI: Selective Serotonin Reuptake Inhibitors

T2DM: Type 2 Diabetes Mellitus

TG: Triglycerides

Criteria for Bariatric Surgery⁸

Adolescents being considered for bariatric surgery should:

- Have failed 6 months of organized attempts at wt management, as determined by their primary care provider
- Have attained or nearly attained physiologic maturity
- Be severely obese (BMI ≥40) with serious obesityrelated comorbidities or BMI ≥50 with less severe comorbidities
- Demonstrate commitment to comprehensive medical and psychologic evaluations both before and after surgery
- Agree to avoid pregnancy for at least 1 yr postoperatively
- Be capable of and willing to adhere to nutritional guidelines postoperatively
- Provide informed consent to surgical treatment
- Demonstrate decisional capacity
- Have a supportive family environment

Footnotes:

- 1. Adapted from the Texas Council's Weight Loss Algorithm for Overweight and Obese Adults
- 2. Barlow SE, Dietz WH. Obesity evaluation and treatment: Expert Committee recommendations. The Maternal and Child Health Bureau, Health Resources and Services Administration and the Department of Health and Human Services. Pediatrics. 1998;102(3):E29
- 3. Barlow SE, Dietz WH. Obesity evaluation and treatment: Expert Committee recommendations. The Maternal and Child Health Bureau, Health Resources and Services Administration and the Department of Health and Human Services. Pediatrics. 1998;102(3):E29; and American Diabetes Association. Type 2 diabetes in children and adolescents. Pediatrics. 2000;105(3 Pt 1):671-80; Refer to appropriate Texas Diabetes Council algorithms
- 4. Medications that affect insulin sensitivity:

Inhaled steroids:

- 1000 mcg/day fluticasone (Flovent)
 Risperidone (Risperdal)
- 2000 mcg/day of all others

Oral Steroids:

- 20 days in previous year, or any within 60 days of screening
- L-asparaginase
- FK506 (Tacrolimus)
- Cyclosporine (Neoral/ Sandimmune)
- Niacin

Medications known to cause wt gain: Lithium

- Olanzapine (Zyprexa)
- Clozapine (Clozaril)
- Quetiapine (Seroquel)
- Ziprasidone (Geodon)
- Carbamazepine (Tegretol)
- Valproic acid (Depakote/ Depakene/Depacon)
- Tricyclic Antidepressants

- Insulin/Insulin Analogs
- Sulfonylureas
- Cyproheptadine
- Estrogens/Progestins

- 5. No evidence-based outcomes data are yet available for weight loss targets
- 6. Berkowitz RI, Wadden TA, Tershakovec AM, et al. Behavior therapy and sibutramine for the treatment of adolescent obesity: a randomized controlled trial. JAMA. 2003;289(14):1805-12; sibutramine is FDA-approved for ages ≥16 yr
- 7. McDuffie JR, Calis KA, Uwaifo GI, et al. Efficacy of orlistat as an adjunct to behavioral treatment in overweight African American and Caucasian adolescents with obesity-related co-morbid conditions. J Pediatr Endocrinol Metab. 2004;17(3):307-19; orlistat is FDA-approved for ages ≥12 yr
- 8. Inge TH, Krebs NF, Garcia VF, et al. Bariatric surgery for severely overweight adolescents: concerns and recommendations. Pediatrics. 2004;114(1):217-23
- 9. Rosner B, Prineas R, Loggie J, et al. Percentiles for body mass index in U.S. children 5 to 17 years of age. J Pediatr. 1998:132(2):211-22.

Additional References

Bobo N, Evert A, Gallivan J, et al. An update on type 2 diabetes in youth from the National Diabetes Education Program. Pediatrics. 2004;114(1):259-63

Garcia VF, Langford L, Inge TH. Application of laparoscopy for bariatric surgery in adolescents. Curr Opin Pediatr. 2003;15(3):248-55

Krebs NF, Jacobson MS; American Academy of Pediatrics Committee on Nutrition. Prevention of pediatric overweight and obesity. Pediatrics. 2003;112(2):424-30

Height (in)		Weight (Ib)																
36	24	26	28	29	31	33	35	37	39	40	42	44	46	48	50	52	53	
5 <i>7</i>	25	27	29	31	53	35	37	39	41	43	45	47	49	51	52	54	56	
58	27	29	31	33	35	57	39	41	43	45	47	49	51	53	55	57	59	
59	28	50	32	35	37	39	41	43	45	47	50	52	54	56	58	60	63	
40	30	32	34	56	39	41	43	45	48	50	52	55	57	59	61	64	66	
11	51	33	56	58	41	43	45	48	50	52	55	57	60	62	64	67	69	
12	3 5	35	58	40	45	45	48	50	53	55	58	60	63	65	68	70	73	
13	34	37	39	42	45	47	50	52	55	58	60	63	66	68	71	73	76	
14	56	38	41	44	47	49	52	55	58	60	63	66	69	71	74	77	80	
15	57	40	45	46	49	52	55	57	60	63	66	69	72	75	78	80	83	
16	39	42	45	48	51	54	57	60	63	66	69	72	75	78	81	84	87	
17	41	44	47	50	53	56	60	63	66	69	72	75	78	82	85	88	91	
18	43	46	49	52	56	59	62	65	69	72	75	78	82	85	88	92	95	
19	44	48	51	55	58	61	65	68	72	75	78	82	85	89	92	95	99	1
50	46	50	53	57	60	64	67	71	75	78	82	85	89	92	96	99	103	1
51	48	52	55	59	63	66	70	74	78	81	85	89	92	96	100	103	107	1
52	50	54	58	61	65	69	73	77	81	84	88	92	96	100	104	107	111	1
53	52	56	60	64	68	72	76	80	84	88	92	96	100	104	108	112	116	I
54	54	58	62	66	70	7-1	79	85	87	91	95	99	103	108	112	116	120	1
55	56	60	64	69	73	77	82	86	90	94	99	103	107	112	116	120	125	I
56	58	62	67	71	76	80	85	89	93	98	102	107	111	116	120	125	129	1
5 <i>7</i>	60	65	69	74	78	83	88	92	97	101	106	111	115	120	125	129	134	1
58	62	67	72	76	81	86	91	95	100	105	110	115	119	124	129	134	138	1
59	64	69	74	79	84	89	94	99	104	109	114	119	124	128	133	138	143	1
50	66	72	77	82	87	92	97	102	107	112	118	123	128	153	138	143	148	1
51 50	69	74	<i>7</i> 9	85	90	95	100	106	111	116	121	127	132	157	143	148	153	1
52	71 77	76 70	82	87	93	98	104	109	115	120	125	131	136	142	147	153	158	l
53	73	79	85	90	96	101	107	113	118	124	130	155	141	146	152	158	163	1
54	76 78	81 84	87 90	93 96	99	105 108	110 114	116	122	128	134	140	145	151	157	163	169	1.
55 56	80	87	93	99	102			120	126	132	138 142	144	150	156	162	168	174	1
57	83	87 89	93 96	102	105 108	111 115	117 121	124 127	150 154	136 140	147	148 153	155 159	161 166	167 172	173 178	179 185	1
58	85	92	98	102	112	118	121	131	158	140	151	158	164	171	177	184	190	1
59	88	95	101	103	115	122	128	135	142	149	155	162	169	176	182	189	196	2
70	90	97	101	111	118	125	132	139	146	153	160	167	174	181	188	195	202	2
7]	93	100	107	114	122	129	136	145	150	157	165	172	179	186	193	200	207	2
72	96	103	110	118	125	152	140	147	155	162	169	177	184	191	199	206	213	2
73	98	106	113	121	129	156	144	151	159	166	174	182	189	197	20-1	212	219	2
4	101	109	117	124	132	140	148	155	163	171	179	187	194	202	210	218	225	2
75	104	112	120	128	136	144	152	160	168	176	184	192	200	208	216	224	232	2
76	107	115	125	131	139	148	156	164	172	180	189	197	205	213	221	250	238	2
77	109	118	126	135	143	151	160	168	177	185	194	202	210	219	227	236	244	2
78	112	121	150	138	147	155	164	173	181	190	199	207	216	225	233	242	250	2
3M! kg/m²)	13	I4	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	

